

AMENDMENTS TO THE CLAIMS

Listing of Claims

1. – 18. (Cancelled).

19. (Currently Amended) An apparatus for handling electrical components, the apparatus comprising:

a movable head for handling the components, said head including at least one gripper and at least one storage element including a plurality of storage spaces for storing the electrical ~~components~~ components, wherein

said at least one storage element is separate from said at least one gripper whereby components picked up by said at least one gripper are depositable at said plurality of storage spaces of said at least one storage element such that the deposited components are removable from said plurality of storage spaces via said at least one gripper, and

wherein said plurality of storage spaces are distributed ~~in a grid fashion~~ on a sliding part mounted on said head, said sliding part being displaceable ~~in a step-by-step fashion~~ relative to said head, such that when said sliding part is displaced, said plurality of storage spaces are displaced successively.

20. (Previously Presented) An apparatus according to claim 19, wherein said components are held at a holding end of said at least one gripper,

said holding end being movable transversely with respect to a placement direction of said components into a transfer position assigned to a transfer station on said head, and said plurality of storage spaces in said head being successively displaced to said transfer station.

21. (Previously Presented) An apparatus according to claim 20, wherein said at least one gripper is mounted on a pivoting element of said head, and said holding end is pivotable transversely, with respect to the placement direction, between a placement station and said transfer station via the pivoting element.

22. (Previously Presented) An apparatus according to claim 21, wherein said at least one gripper is mounted in a guide in said pivoting element, such that said at least one gripper is displaceable longitudinally in the placement direction.

23. (Previously Presented) An apparatus according to claim 22, wherein said holding end in said transfer station is displaceable longitudinally in a direction relative to one of said plurality of storage spaces.

24. (Previously Presented) An apparatus according to claim 20, wherein said at least one gripper is a suction device, and a pressure condition in said suction device in a transfer position is controlled such that a holding force is greater than or less than a holding force exerted by one of said plurality of storage spaces.

25. (Cancelled)

26. (Previously Presented) An apparatus according to claim 20, wherein said sliding part is provided with suction openings for said components.

27. (Previously Presented) An apparatus according to claim 26, wherein said suction openings are permanently connected to a common suction line.

28. (Previously Presented) An apparatus according to claim 27, wherein said at least one storage element is provided with means for changing the pressure condition in said suction devices.

29. (Previously Presented) An apparatus according to claim 20, wherein said sliding part is of annular design and rotatably mounted.

30. (Previously Presented) An apparatus according to claim 29, wherein the axis of rotation of said sliding part is congruent with the longitudinal axis of said at least one gripper located in the placement position, and said plurality of storage spaces have supporting surfaces extending perpendicularly to the longitudinal axis of said at least one gripper.

31. (Previously Presented) An apparatus according to claim 30, wherein a pivoting element is provided with a plurality of guides for cooperation with said at least one gripper, and said plurality of guides can be pivoted successively into the transfer position.

32. (Previously Presented) An apparatus according to claim 31, wherein said pivoting element comprises, two holders, each having longitudinal axes forming a V shape with respect to each other in a pivoting plane, such that said holders are alternatively pivotable into the placement position in which a respective one of said holders is in the transfer position.

33. (Previously Presented) An apparatus according to claim 31, wherein said pivoting element is constructed as a turret-like rotor having a multiplicity of circularly arranged grabbers, and wherein the rotor is drivable and indexable in accordance with the angular pitch of said grabbers.

34. (Previously Presented) An apparatus according to claim 33, wherein a plurality of working stations are provided along a circulation path of said grabbers and a stator of said head, and at least one of said working stations forms a transfer station of said head.

35. (Previously Presented) An apparatus according to claim 34, wherein, in the direction of rotation of a rotor, between said transfer station and said placement station, a sensing station is disposed for determining the position of said components and a rotation station for said components.

36. (Previously Presented) An apparatus according to claim 35, wherein said head has one storage element, assigned to a transfer station.

37. (Currently Amended) An apparatus for handling electrical components, comprising:

an equipping head for handling the components, the head being movable between feed devices carrying the electrical components and a substrate, the head including,

at least one storage element with a plurality of storage spaces, and

at least one gripper for removing the electrical components from the feed devices and for attaching the electrical components to the substrate,

wherein said at least one storage element and said at least one gripper each being relatively are movable together with respect to the other within the head between the feed devices and the substrate,

wherein said at least one gripper is further for depositing components, picked up from the feeding devices, to the plurality of storage spaces and for subsequently extracting components from the storage spaces and mounting them on the substrate.

38. (Previously Presented) The apparatus of claim 37, wherein the number of storage spaces is greater than the number of grippers.

39. (Previously Presented) An apparatus according to claim 37, wherein said components are held at a holding end of said at least one gripper,

43. (Previously Presented) An apparatus according to claim 39, wherein said at least one gripper is a suction device, and a pressure condition in said suction device in a transfer position is controlled such that a holding force is greater than or less than a holding force exerted by one of said plurality of storage spaces.

said holding end being movable transversely with respect to a placement direction of said components into a transfer position assigned to a transfer station on said head, and said plurality of storage spaces in said head being successively displaced to said transfer station.

40. (Previously Presented) An apparatus according to claim 39, wherein said at least one gripper is mounted on a pivoting element of said head, and said holding end is pivotable transversely, with respect to the placement direction, between a placement station and said transfer station via the pivoting element.

41. (Previously Presented) An apparatus according to claim 40, wherein said at least one gripper is mounted in a guide in said pivoting element, such that said at least one gripper is displaceable longitudinally in the placement direction.

42. (Previously Presented) An apparatus according to claim 41, wherein said holding end in said transfer station is displaceable longitudinally in a direction relative to one of said plurality of storage spaces.